





CDA-7990

FM/AM CD Player

- OWNER'S MANUAL Please read before using this equipment.
- MODE D'EMPLOI Veuillez lire avant d'utiliser cet appareil.
- MANUAL DE OPERACIÓN Léalo antes de utilizar este equipo.



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WARNING



WARNING

This symbol means important instructions.

Failure to heed them can result in serious injury or death.

DO NOT OPERATE ANY FUNCTION THAT TAKES YOUR ATTENTION AWAY FROM SAFELY DRIVING YOUR VEHICLE.

Any function that requires your prolonged attention should only be performed after coming to a complete stop. Always stop the vehicle in a safe location before performing these functions. Failure to do so may result in an accident.

KEEP THE VOLUME AT A LEVEL WHERE YOU CAN STILL HEAR OUTSIDE NOISE WHILE DRIVING.

Failure to do so may result in an accident.

MINIMIZE DISPLAY VIEWING WHILE DRIVING.

Viewing the display may distract the driver from looking ahead of the vehicle and cause an accident.

DO NOT DISASSEMBLE OR ALTER.

Doing so may result in an accident, fire or electric shock.

USE THIS PRODUCT FOR MOBILE 12V APPLICATIONS

Use for other than its designed application may result in fire, electric shock or other injury.

KEEP SMALL OBJECTS SUCH AS BATTERIES OUT OF THE REACH OF CHILDREN.

Swallowing them may result in serious injury. If swallowed, consult a physician immediately.

USE THE CORRECT AMPERE RATING WHEN REPLACING FUSES.

Failure to do so may result in fire or electric shock.

USE ONLY IN CARS WITH A 12 VOLT NEGATIVE GROUND.

(Check with your dealer if you are not sure.) Failure to do so may result in fire, etc.

DO NOT BLOCK VENTS OR RADIATOR PANELS.

Doing so may cause heat to build up inside and may result in fire.

DO NOT PLACE HANDS, FINGERS OR FOREIGN OBJECTS IN INSERTION SLOTS OR GAPS.

Doing so may result in personal injury or damage to the product.



This symbol means important instructions.

Failure to heed them can result in injury or material property damage.

HALT USE IMMEDIATELY IF A PROBLEM APPEARS.

Failure to do so may cause personal injury or damage to the product. Return it to your authorized Alpine dealer or the nearest Alpine Service Center for repairing.



Temperature

Be sure the temperature inside the vehicle is between $+60^{\circ}$ C ($+140^{\circ}$ F) and -10° C ($+14^{\circ}$ F) before turning your unit on.

Moisture Condensation

You may notice the CD playback sound wavering due to condensation. If this happens, remove the disc from the player and wait about an hour for the moisture to evaporate.

Damaged Disc

Do not attempt to play cracked, warped, or damaged discs. Playing a bad disc could severely damage the playback mechanism.

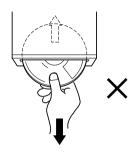
Maintenance

If you have problems, do not attempt to repair the unit yourself. Return it to your Alpine dealer or the nearest Alpine Service Station for servicing.

Never Attempt the Following

Do not grip or pull out the disc while it is being pulled back into the player by the automatic reloading mechanism.

Do not attempt to insert a disc into the unit when the unit power is off.



Inserting Discs

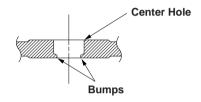
Your player accepts only one disc at a time for playback.

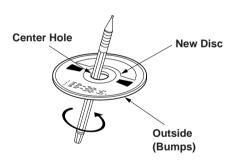
Do not attempt to load more than one disc. Make sure the label side is facing up when you insert the disc. Your player will automatically eject any disc that is inserted incorrectly. If the player continues to eject a correctly inserted disc, push the Reset switch with a pointed object such as a ball-point pen.

Playing a disc while driving on a very bumpy road may result in skips, but this will not scratch the disc or damage the player.

New Discs

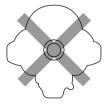
As a protective measure to prevent the CD from jamming, the CD player will automatically eject discs with irregular surfaces or inserted incorrectly. When a new disc is inserted into the player and ejected after initial loading, using your finger, feel around the inside of the centre hole and outside edge of the disc. If you feel any small bumps or irregularities, this could inhibit proper loading of the disc. To remove the bumps, rub the inside edge of the hole and outside edge of the disc with a ball-point pen or other such instrument, then insert the disc again.





Irregular Shaped Discs

Be sure to use round shape discs only for this unit and never use any special shape discs. Use of special shape discs may cause damage to the mechanism.



Installation Location

Make sure the CDA-7990 will not be installed in a location subjected to:

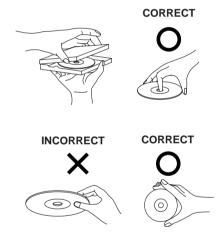
- · Direct sun and heat
- · High humidity and water
- · Excessive dust
- Excessive vibrations

Handling the Detachable Front Panel

- · Do not expose to rain or water.
- Do not drop or apply shock.

Correct Handling

Do not drop the disc while handling. Hold the disc so you will not leave fingerprints on the surface. Do not affix tape, paper, or gummed labels to the disc. Do not write on the disc.



Disc Cleaning

Fingerprints, dust, or soil on the surface of the disc could cause the CD player to skip. For routine cleaning, wipe the playing surface with a clean, soft cloth from the center of the disc to the outer edge. If the surface is heavily soiled, dampen a clean, soft cloth in a solution of mild neutral detergent before cleaning the disc.



Disc Accessories

There are various accessories available on the market for protecting the disc surface and improving sound quality.

However, most of them will influence the thickness and/or diameter of the disc. Using such accessories can cause the disc to be out of standard specifications and may create operational problems. We recommend not using these accessories on discs played in Alpine CD players.







Disc Stabilizer



Detaching the Front Panel

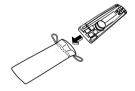
Press the **POWER** button for more than 3 seconds to turn off the power.

Press the **RLS** (Release) button at lower left corner until the front panel pops out.

Grasp the left side of the front panel and pull it out.



- The front panel may become hot in normal usage (especially the connector terminals), this is not malfunction.
- To protect the front panel, place it in the supplied carrying case.



Attaching the Front Panel

- 1 First, insert the right side of the front panel into the main unit. Align the groove on the front panel with the projections on the main unit.
- 2 Push the left side of the front panel until it locks firmly into the main unit.



 Before attaching the front panel, make sure that there is no dirt or dust on the connector terminals and no foreign object between the front panel and the main unit.

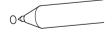
Initial System Start-Up

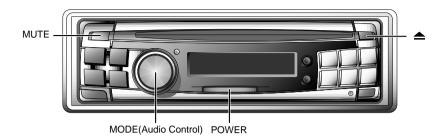
Make sure that the Power is turned off. When the power is on, press and hold the **POWER** button for at least 3 seconds to turn off the power.

Immediately after installing or applying power to the unit, it should be initialized. To do this, first, remove the detachable front panel. Behind the front panel, to the right of the connector, there is a small hole.

Using a ball-point pen or other pointed object, press the reset switch mounted behind this hole to complete the initialization procedure.







Turning Power On and Off

1 Press the **POWER** button to turn on the unit.

The volume level gradually increases to the previous level you were listening to before the unit was turned off. Press the **POWER** button for more than 3 seconds to turn off the unit

Controllable with Remote Control

This unit can be controlled with an optional Alpine remote control. For details, consult your Alpine dealer.

Point the optional remote control transmitter at the remote control sensor.

Remote control sensor



• Connectable to Remote Control Interface Box

You can operate this unit from the vehicle's control unit when an Alpine Remote Control Interface Box (optional) is connected. For details, contact your Alpine dealer.

- The unit can be turned on by pressing any other button except the eject button.
- The very first time the power is turned on, the volume will start from -67dB.

Adjusting Volume/Subwoofer/ Bass/Treble/Balance (Between Left and Right)/Fader (Between Front and Rear)

Press the MODE (Audio Control) knob repeatedly to choose the desired mode.

Each press changes the modes as follows:

2 Rotate the MODE (Audio Control) knob until the desired sound is obtained in each mode

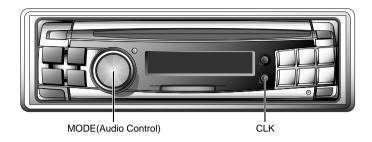
Audio Mute Function

Activating this function will instantly lower the volume level by $20\ \mathrm{dB}.$

1 Press the MUTE button to activate the MUTE mode. The audio level will decrease by about 20 dB.

Pressing the **MUTE** button again will bring the audio back to its previous level.

- Not displayed when setting the SUB-W mode to OFF.
 (For the setting of the SUB-W mode, refer to page 19.)
- ** To display the BASS or TREBLE mode:
 - 1 Press and hold the SETUP button for at least 3 seconds.
 - ② Press the I◀◀ DN or ▶▶ UP button to select the BASS/TRE mode.
 - ③ Press the TUNE button to set the BASS/TRE to ON.
 - (4) Press the SETUP button to complete the setting. Then perform the step 1 in the left column
 - ** "BASS", "TREBLE" is not displayed when an external audio processor is connected (except PRA-H400).
- If the MODE (Audio Control)
 knob is not rotated in 5
 seconds after selecting the
 BASS, TREBLE, BAL ANCE, or FADER mode, the
 unit automatically returns to
 the VOLUME mode.
- When the subwoofer mode is ON, its respective levels may be adjusted.
- The settings of the Bass and Treble will be individually memorized for each source (FM, AM and CD) until the setting is changed. Depending on the connected devices, some functions and display indications do not work.

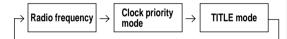


Displaying Time

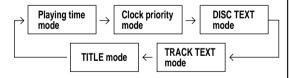
1 Press the CLK (clock) button repeatedly until the time is displayed.

Each press changes the modes as follows:

Radio mode



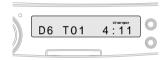
CD Player/Changer modes



 Selecting any tuner or CD function while in the clock priority mode will interrupt the time display momentarily. The function selected will be displayed for about 5 seconds before the time returns to the display.

Setting Time

- 1 Press and hold the **CLK** (Clock) button for at least 3 seconds while the time is displayed until the time indication blinks.
- **2** Rotate the **MODE** (Audio Control) knob to adjust the hours while the time indication is blinking.
- When the hours has been adjusted, press the MODE (Audio Control) knob.
- 4 Rotate the MODE (Audio Control) knob to adjust the minutes while the time indication is blinking. The time is automatically set 5 seconds after the minute adjustment. The time can also be manually set by pressing the MODE (Audio Control) knob.





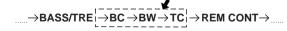
Adjusting the Bass/Treble Center Frequencies

You can change the Bass/Treble center frequencies on this unit. This gives you flexibility in creating your ideal sound field.

- **1** Press the hold the **SETUP** button for at least 3 seconds.
- Press the ▶► UP button to select the BASS/TRE mode. Each press changes the modes as shown:

$$ightharpoonup$$
 BASS/TRE $ightharpoonup$ REM CONT $ightharpoonup$ TUNER $ightharpoonup$ ILLUMI $ightharpoonup$ MUTE $ightharpoonup$ AUX-IN $ightharpoonup$ D-OUT $ightharpoonup$ SUB-W $ightharpoonup$ SCROLL $ightharpoonup$

After pressing the TUNE button, press the ►► UP or I◄ DN button to select the mode to change.



If you press the ◄ DN button the display scrolls in reverse sequence.

- Press the TUNE button to select the desired setting.
 - 1. BC (Setting the Bass Center Frequency):

$$\rightarrow$$
 BC 60Hz \rightarrow BC 70Hz \rightarrow BC 80Hz \rightarrow BC 90Hz \rightarrow BC 200Hz \leftarrow BC 150Hz \leftarrow BC 130Hz \leftarrow BC 100Hz \leftarrow

Emphasizes the displayed Bass frequency ranges.

BW (Setting the Bass Band Width): (Q-Factor)

```
ightarrow BW WIDE1 
ightarrow BW WIDE2 
ightarrow BW WIDE3 
ightarrow BW WIDE4 - (Narrow) \leftarrow -----
ightarrow (Wide)
```

Changes the displayed frequency's band width to narrow or wide.

3. TC (Setting the Treble Center Frequency):

$$ightarrow$$
 TC 10.0kHz $ightarrow$ TC 12.5kHz $ightarrow$ TC 15.0kHz $ightarrow$ TC 17.5kHz $ightarrow$

Emphasizes the displayed treble frequency ranges.

Default values

BC: 80 Hz BW: WIDE1 TC: 10.0kHz

5 Press the **SETUP** button again to return to normal operation.



Setting when Using the Remote Control

- 1 Press and hold the **SETUP** button for at least 3 seconds.
- Press ►►I UP or I◄◄ DN button to select REM CONT mode. Each press changes the modes as shown:

ightarrowBASS/TRE ightarrow REM CONT ightarrow TUNER ightarrow ILLUMI —

MUTE \leftarrow AUX-IN \leftarrow D-OUT \leftarrow SUB-W \leftarrow SCROLL \leftarrow

3 Press the **TUNE** button to toggle the REM CONT mode between On and Off.

REM CONT OFF \leftrightarrow REM CONT ON

- REM CONT ON: Set to ON when using the optional Remote Control to operate the CDA-7990.
- REM CONT OFF: Resist the inference from the noise such as ultraviolet rays exist in the natural to provide a much higher quality sound.

Set to OFF when not using the optional Remote Control.

<Display of "REM CONT ON">



When the setting is completed, press the SETUP button to return to the normal mode.

- If you press the I◀ DN button the display scrolls in reverse sequence.
- The initial setting at the factory is "REM CONT OFF".

Switching the Tuner Mode

The CDA-7990 incorporates the MAX TUNE SQ for the highest quality tuner audio. Moreover, you can choose between two settings to suit your own personal sound preferences and usage.

- 1 Press and hold the **SETUP** button for at least 3 seconds.
- Press the ►►I UP or I◄► DN button to select TUNER mode. Each press changes the modes as shown.

ightarrow BASS/TRE ightarrow REM CONT ightarrow TUNER ightarrow ILLUMI ightarrow MUTE \leftarrow AUX-IN \leftarrow D-OUT \leftarrow SUB-W \leftarrow SCROLL \leftarrow

3 Press the **TUNE** button to toggle the **TUNER** mode between NORMAL and Hi-Fi.

TUNER NORMAL \leftrightarrow TUNER Hi-Fi

NORMAL: Standard setting

Hi-Fi: Sound quality priority setting

<Display of "TUNER NORMAL">



4 When the setting is completed, press the **SETUP** button to return to the normal mode.

- If you press the I◄ DN button the display scrolls in reverse sequence.
- The initial setting at the factory is "TUNER NORMAL".
- If you find the sound is very noisy while listening to the tuner in the Hi-Fi mode, we recommend you change to the NORMAL mode.

How MaxTune SQ works its magic

There are a variety of reasons, so let's get technical. 1) The FM section has an extraordinarily high 80dB signal-to-noise ratio, thanks to a new PLL (phase-locked loop) circuit with low iitter, and a new low-noise IF detection circuit. 2) Lower distortion (typically 0.08%, but always less than 0.1%) due to an improved demodulation coil. 3) High performance ceramic filter with automatic Wide/Narrow mode switching for greater selectivity, important in crowded reception areas. 4) Improved high-power input characteristics. 5) The AM section has new parts and circuitry that are more resistant to interference.

What all this adds up to is very simple: a tuner capable of delivering radio sound that doesn't suffer in comparison with CD sound.



Changing Lighting Color

- **1** Press and hold the **SETUP** button for at least 3 seconds.
- Press the ►► UP button repeatedly to select "ILLUMI".

Each press of the ▶▶ UP button changes the modes as shown:

$$ightarrow$$
BASS/TRE $ightarrow$ REM CONT $ightarrow$ TUNER $ightarrow$ ILLUMI $-$
MUTE \leftarrow AUX-IN \leftarrow D-OUT \leftarrow SUB-W \leftarrow SCROLL \leftarrow

If you press the ► DN button the display scrolls in reverse sequence. **3** Press the **TUNE** button to toggle the mode between Blue and Green.

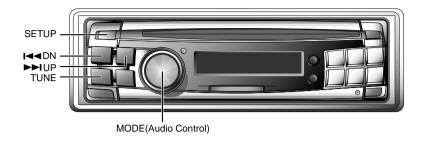
ILLUMI BLUE \leftrightarrow ILLUMI GREEN

<Display of "ILLUMI BLUE">



4 Press the **SETUP** button to set the selected mode.

• The initial setting at the factory is "ILLUMI BLUE".



CD Text Scroll Setting

This CD player has the ability to scroll the disc and track name recorded on CD-Text discs. The scrolling feature will work with names greater than 12 characters. This feature will not work for the 12 character titles that were input manually.

- 1 Press and hold the **SETUP** button for at least 3 seconds.
- Press the ►► UP button repeatedly to select "SCROLL".

Each press of the ►► UP button changes the modes as shown:

$$ightarrow$$
 BASS/TRE $ightarrow$ REM CONT $ightarrow$ TUNER $ightarrow$ ILLUMI $ightarrow$ MUTE $ightarrow$ AUX-IN $ightarrow$ D-OUT $ightarrow$ SUB-W $ightarrow$ SCROLL $ightarrow$

- **3** Press the **TUNE** button to toggle mode between SCROLL ON and OFF.
 - SCROLL ON: the display of CD text is scrolled continuously.
 - SCROLL OFF: the display is scrolled only when a disc is loaded or when a track is changed and the text information exceeds 12 digits.
- 4 When the setting is completed, press the **SETUP** button to return to the normal mode.

 If you press the I DN button the display scrolls in reverse sequence.

- · Initial mode is "SCROLL OFF".
 - The unit scrolls only CD text names. But, when the MD player is connected, the unit also scrolls MD titles. The disc titles input manually (refer to pages 26, 27) cannot be scrolled.

Subwoofer On and Off

- 1 Press and hold the **SETUP** button for more than 3 seconds.
- Press the ►►I UP button repeatedly to select "SUB-W".

Each press of the ►►I UP button changes the modes as shown:

$$ightarrow$$
 BASS/TRE $ightarrow$ REM CONT $ightarrow$ TUNER $ightarrow$ ILLUMI —

MUTE \leftarrow AUX-IN \leftarrow D-OUT \leftarrow SUB-W \leftarrow SCROLL \leftarrow

3 Press the **TUNE** button to toggle mode between SUB-W ON and SUB-W OFF.

If an Ai-NET compatible processor with Subwoofer output is connected:

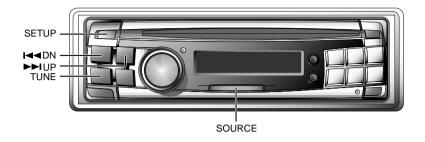
Press the **TUNE** button after selecting the SUB-W ON mode, and the subwoofer output phase is toggled SUB-W NORMAL (0°) or SUB-W REVERS (180°).

- 4 Press the **SETUP** button after setting the SUB-W ON.
- **5** Press the **MODE** (Audio Control) knob repeatedly to select the SUB-W mode.

$$\rightarrow$$
 SUB-W \rightarrow BALANCE \rightarrow VOLUME \leftarrow FADER \leftarrow

6 Rotate **MODE** (Audio Control) knob until the desired sound is obtained in each mode.

 "BASS", "TREBLE" is displayed when setting the BASS/TRE mode to ON.



Digital Optical Output On and Off

When connecting to the Multimedia Manager (PXA-H900), set the D-OUT mode to ON. Set to OFF when not connecting PXA-H900.

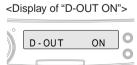
- 1 Press and hold the **SETUP** button for at least 3 seconds.
- Press the ►► UP button to select the D-OUT mode. Each press changes the modes as shown:

$$\begin{array}{c} \rightarrow \text{BASS/TRE} \rightarrow \text{REM CONT} \rightarrow \text{TUNER} \rightarrow \text{ILLUMI} - \\ & & \\ \leftarrow \\ \text{MUTE} \leftarrow \text{AUX-IN} \leftarrow \text{D-OUT} \leftarrow \text{SUB-W} \leftarrow \text{SCROLL} \leftarrow \\ \end{array}$$

3 Press the **TUNE** button to turn on the D-OUT mode.

Each press toggles between D-OUT ON and D-OUT OFF.

D-OUT ON \leftrightarrow D-OUT OFF



4 Press the **SETUP** button again to return to normal operation.

- If you press the I◄ DN button the display scrolls in reverse sequence.
- The initial setting at the factory is "D-OUT OFF".

Setting the AUX Mode

You can input TV/video sound by connecting an optional Ai-NET/RCA Interface cable (KCA-121B) to this component.

- 1 Press and hold the **SETUP** button for more than 3 seconds.
- Press the ►►I UP button repeatedly to select "AUX-IN".

Each press of the ►►I **UP** button changes the modes as shown:

$$ightarrow$$
BASS/TRE $ightarrow$ REM CONT $ightarrow$ TUNER $ightarrow$ ILLUMI $-$
MUTE \leftarrow AUX-IN \leftarrow D-OUT \leftarrow SUB-W \leftarrow SCROLL \leftarrow

3 Press the **TUNE** button to set the mode to AUX-IN ON.

AUX-IN OFF \leftrightarrow AUX-IN ON

- **4** Once AUX-IN is ON, AUXILIARY is displayed by pressing the ►► UP or I← DN button.
 - \rightarrow AUX-IN \rightarrow AUXILIARY \rightarrow MUTE \rightarrow
- **5** Press the **TUNE** button to select the desired display setting in AUX-IN mode.

$$o$$
 AUXILIARY o TELEVISION o VCR o GAME -

<Display when setting to "AUXILIARY">

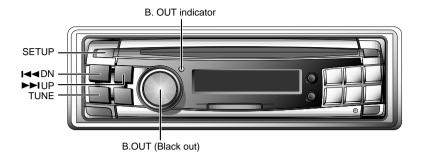


- **6** Press the **SETUP** button to activate the normal mode.
- 7 To adjust the volume, etc., first press the SOURCE button and select the AUXILIARY mode, then make the necessary adjustment.

If you press the

→ DN button
the display scrolls in reverse
sequence.

• The initial setting at the factory is AUX-IN OFF.



Turning Mute Mode On/Off

If a device having the interrupt feature is connected, audio will be automatically muted whenever the interrupt signal is received from the device. This function can be turned ON or OFF from the head unit by following procedure below.

- 1 Press and hold the **SETUP** button for at least 3 seconds.
- Press the ►► UP button to select the MUTE mode. Each press changes the modes as shown:

$$ightharpoonup$$
 BASS/TRE $ightharpoonup$ REM CONT $ightharpoonup$ TUNER $ightharpoonup$ ILLUMI $ightharpoonup$ MUTE $ightharpoonup$ AUX-IN $ightharpoonup$ D-OUT $ightharpoonup$ SUB-W $ightharpoonup$ SCROLL $ightharpoonup$

- **3** Press the **TUNE** button to turn on or off the Mute mode.
 - Each press toggles between the MUTE ON and OFF modes.
- Press the SETUP button again to return to normal operation.

 If you press the I◀■ DN button the display scrolls in reverse sequence.

 The initial setting at the factory is "MUTE ON".

Blackout Mode On and Off

Turning off the back light of front panel can resist the inference from the noise caused by the back light and provide you a much higher quality sound.

1 Press and hold the **B. OUT** (Black out) button for at least 3 seconds, the "B-OUT ON" indication appears and disappears. Then the blackout mode starts. The back light turns off with only the B. OUT indicator ON, and the audio signals bypass the treble and bass circuits. This reduces noise to give a clean, flat response.

To cancel the blackout mode, press and hold the **B. OUT** (Black out) button for at least 3 seconds. After the "B-OUT OFF" indication appears and disappears, the back light turns on with the B. OUT indicator OFF.

- If any button on the unit is pressed during the blackout mode, the function will be displayed for 5 seconds to show the operation before returning to Blackout mode.
- The BASS/TREBLE control is bypassed when the display panel lighting is OFF.



Displaying the Title/Text

It is possible to display the CD/Station title if the title has been previously inputted. For details, see Titling Discs/Stations (pages 26, 27). Text information, such as the disc name and the track name, will be displayed if playing a CD text compatible disc.

1 Press the **TITLE** button.

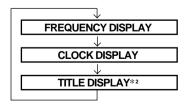
The mode will change every time the button is pressed.

About "Title" and "Text"

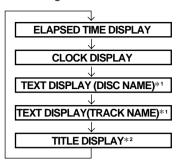
Title: With this device, it is possible to input the CD/ Station name (see pages 26, 27). This inputted name is referred to as a "title".

Text: Text compatible CDs contain text information such as the disc name and track name. Such text information is referred to as "text".

Radio mode:



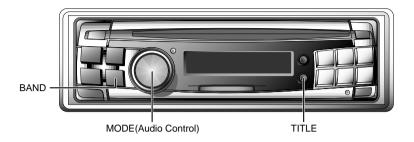
CD/Changer mode:



- *1 Displayed during playback of a text compatible CD. "NO TEXT" will be displayed when the CD is not text compatible.
- *2 "_____" will be displayed when the title has not been inputted.

Sample display with a text compatible CD.

- Some characters used for CD
 Text, may not be compatible with
 this device. These characters will
 not be displayed correctly.
- CD Text can store more information than this unit can display, depending on the CD changer.



Titling Discs/Stations

It is possible to title your favorite CD's or radio stations.

1 Press the TITLE button and select the title display mode.

For details, see "Displaying the Title/Text" (pages 24, 25).

2 Press and hold the **TITLE** button for at least 3 seconds. The first character will blink.



3 Press the BAND button to switch to the desired character.

o Capital letter o Small letter o Numeral/symbol -

4 Rotate the MODE (Audio Control) knob to select the desired letter/numeral/symbol available for naming. ("A" for example).

Capital letter:

_ABCDEFGHIJKLMNO PQRSTUVWXYZ

Small letter:

_abcdefghijklmnopqr stuvwxyz

Numeral/symbol:

_0123456789!"#\$%&'()*+,-./:;<=>?@\

Press the MODE (Audio Control) button to store the first character. The first character will stop blinking and the display will automatically advance to the next character. When that character begins to blink, you may choose the next letter or symbol of your title.



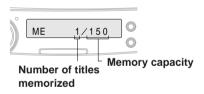
Repeat the steps 3 and 5 above to complete the titling. Pressing the MODE (Audio Control) button after entering the 12th character, automatically stores the title into memory.

When entering a title of less than 12 characters (for example, 3 character title):

After entering 3 characters to complete your title, the 4th character space will be blinking. Press the **TITLE** button to record the title.

The title memory number will be displayed for about 2 seconds.

For example:



7 Press the **TITLE** button to end the title display mode.

- The memory capacity for the disc title is up to 150 including the built-in CD, radio station, CDchanger. If you try to store beyond the limit, the display will show "FULL DATA." At this point, no more titles can be stored.
- To input a new title, one of the previously inputted titles must first be deleted.
- When you want to erase a title, enter the " " symbol into all spaces.



Searching for Titled Stations

If a Station is titled, you can do a search for it. (To title Stations, refer to "Titling Discs/Stations" on pages 26, 27.)

- 1 Press and hold the **T.S.M.** button for at least 2 seconds. The title blinks in the display.
- Press the I◀ DN or ►► UP button to select the desired station title.
- **3** Press the **T.S.M.** button to play the selected station.

The unit will automatically search for the station and begin play.

• If no title is entered, the display will show "No DATA".

Searching for Titled Discs/CD-TEXT

If a CD is titled or contains CD-TEXT, you can do a search for it. (To title CDs, refer to "Titling Discs/Stations" on pages 26, 27.)

- 1 Press and hold the **T.S.M.** button for at least 2 seconds. The title blinks in the display.
- Press the I◄ DN or ►►I UP button to select the desired disc title or CD-TEXT.

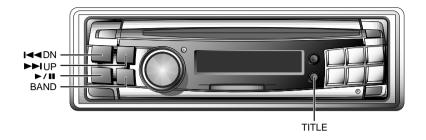
For example:

DISC title of CD built-in → DISC title of CD Player → DISC title of CD changer

CD text of CD changer ← CD text of CD Player ← CD text of CD built-in ←

- The display scroll sequence varies depending on the connected source.
- **3** Press the **T.S.M.** button to play the selected disc. The unit will automatically search for the disc and begin play.

 This function cannot be performed when using a multichanger switching device.



Erasing Disc Title (CD/CD Changer only)

- 1 Press the TITLE button to select the disc titling mode. Then, press and hold for at least 3 seconds.
- Press and hold the ►/■ button for at least 2 seconds to activate the title scanning mode. The title in the display will blink.
- 3 Press the I◀ DN or ►►I UP button repeatedly unit the disc title you want to erase is displayed.
- 4 Press and hold the ►/II button for at least 2 seconds to erase the disc title displayed.
- **5** Press and hold the **TITLE** button for at least 3 seconds to cancel the disc title erasing mode.
- You cannot erase a CD-TEXT.
 This information is stored on the CD.

Recalling the Stored Settings

Settings stored in the Alpine Multimedia Manager (PXA-H900) using the optional Remote Control, can be recalled at any time.

- 1 Press the **A. PROC** button on the Remote control.
- **2** Press the ▲ or ▼ button within 5 seconds, to recall the stored setting.
- Refer to the Owner's manual of the optional Remote Control.

Switching the Disc Mode

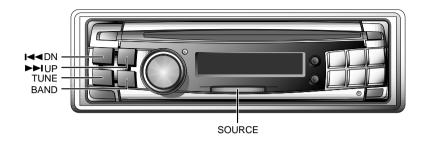
Use this function when connecting the optional CD/MD player, changer.

Press the BAND button to switch the Disc mode in the CD/MD/Changer mode.
Disc mode is displayed for about 3 seconds.

```
\begin{array}{c} \rightarrow \quad \text{DISC} \quad \rightarrow \quad \text{EXT DISC} \quad \rightarrow \quad \text{CHANGER} \\ \text{(Built-in CD)} \quad \text{(External CD/MD)} \quad \text{(Changer)} \end{array}
```

• The display may be different depending on the production connected.

Radio Operation

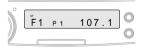


Manual Tuning

- 1 Press the **SOURCE** button until a radio frequency appears in the display.
- Press the BAND button repeatedly until the desired radio band is displayed.
 Each press changes the band:

$$\rightarrow$$
F1(FM1) \rightarrow F2(FM2) \rightarrow AM \rightarrow

- Press the TUNE button repeatedly until "DX SEEK" and "SEEK" disappear from the display.
- Press the I◄ DN or ►►I UP button to move downward or upward one step respectively until the desired station frequency is displayed.
 - <Display example>



- · The initial mode is DX SEEK.
- The ST indicator appears on the display when a Stereo FM station is tuned in.

Automatic Seek Tuning

- 1 Press the **SOURCE** button until a radio frequency appears in the display.
- **2** Press the **BAND** button repeatedly until the desired radio band is displayed. Each press changes the band:

$$ightarrow$$
F1(FM1) $ightarrow$ F2(FM2) $ightarrow$ AM $-$

3 Press the **TUNE** button to illuminate the DX and SEEK indicators in the display.

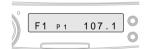
With the DX (Distance) mode activated, both strong and weak stations will be tuned in the Auto-Seek operation.

Press again to return to the local mode. The DX indicator will turn off and the SEEK indicator will remain illuminated. Now, only strong stations will be tuned.

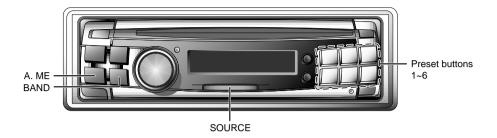
4 Press the I◄► DN or ►►I UP button to automatically seek for a station downward or upward respectively.

The unit will stop at the next station it finds. Press the same button again to seek the next station.

<Display example>



Radio Operation



Manual Storing of Station Presets

- 1 Select the radio band and tune in a desired radio station you wish to store in the preset memory.
- Press and hold any one of the Preset buttons (1 through 6) for at least 2 seconds until the "P" (Preset) on the display blinks.



3 Press the **Preset button** into which you wish to store the station while the "P" (Preset) display is blinking (within 5 seconds).

The display stops blinking once the station has been memorized. The display shows the band, preset No. with a "P" and station frequency memorized.



- 4 Repeat the procedure to store up to 5 other stations onto the same band.
 - To use this procedure for other bands, simply select the band desired and repeat the procedure.
 - A total of 24 stations can be stored in the preset memory (6 stations for each band; FM1, FM2, AM and D.A.P.).
- If you store a station in a preset memory which already has a station, the current station will be cleared and replaced with the new station.
- The function indicator will always light in green in the radio mode

Automatic Memory of Station Presets

- 1 Press the **SOURCE** button to select the radio mode.
- **2** Press the **BAND** button repeatedly until the desired radio band is displayed.
- **3** Press and hold the **A. ME** button for at least 2 seconds.

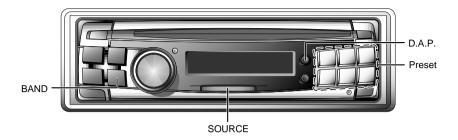
The frequency on the display continues to change while Automatic Memory is in progress. The tuner will automatically seek and store 6 strongest stations into the selected band.

They will be stored into presets 1 to 6 in order of signal strength.

When Automatic Memory has been completed, the tuner goes to the station stored in Preset No. 1.

 If no stations are stored, the tuner will return to the original station you were listening to before the auto memory procedure began.

Radio Operation



Storing into Direct Access Preset (D.A.P.) Band

A combination of radio stations in any band (up to 6 stations) can be manually preset into the D.A.P. band.

Press the **D.A.P.** button to toggle the D.A.P. setting between ON and OFF.

 $D.A.P. ON \leftrightarrow D.A.P. OFF$

<Display of "D.A.P. ON" >



Press the **BAND** button to select FM or AM. The selected band will be displayed.

To memorize stations onto the D.A.P. band, follow the steps for the automatic or Manual Storing of Station Presets section above. • This function can be used together with the Automatic Memory Preset.

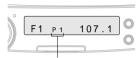
Tuning to Preset Stations

- 1 Press the **SOURCE** button to select the radio mode.
- **2** Press the **BAND** button repeatedly until the desired band is displayed.

To select the D.A.P. band, press the **D.A.P.** button to set the D.A.P. to ON.

3 Press the station **Preset** button that has your desired radio station in memory.

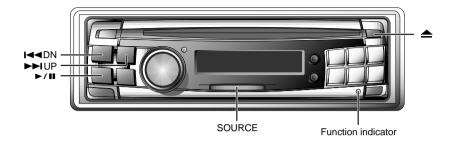
The display shows the band, preset number with a "P" and frequency of the station selected.

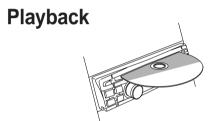


Preset indicator

Display when receiving the station stored in "1" to "6".

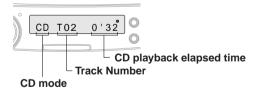
CD Player Operation





Insert a disc with the label side facing up.

- Insert a disc with the label side facing up. The disc will be pulled into the unit automatically. The unit starts to play the CD.
 - <Display example of CD mode>



When a disc is already inserted, press the **SOURCE** button to switch to the CD mode. The mode will change every time the button is pressed.



(* Only when the CD changer is connected)

- Three-inch (8 cm) CD's can be used.
- If the CD is not removed for several seconds after it has been ejected, the player automatically draws the CD into the compartment to protect the CD.
- Only compact discs containing the mark shown can be used.





- We cannot fully guarantee the playback of CD-R (CD-Recordable). You cannot playback CD-RW (CD-ReWritable) on this unit.
- The function indicator will always light in red in the CD mode.

- 2 To pause playback, press the ►/III button. Pressing the ►/III button again will resume playback.
- 3 To eject the disc, press the ≜ button.

Music Sensor (Skip)

Momentarily press the I◄◄ DN button once during CD play to return to the beginning of the current track. If you wish to access the beginning of a track further back, repeatedly press until you reach the desired track.

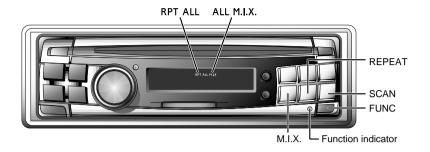
Press the >>I UP button once to advance to the beginning of the next track. If you wish to access the beginning of a track further ahead, press repeatedly until the desired track is reached.

 The music sensor feature is functional in the play or pause mode.

Fast Forward and Backward

Press and hold the I◄ DN or ►► UP button to quickly move backward or forward until you reach the desired section of the track.

CD Player Operation



Repeat Play

1 Press the REPEAT button to play back repeatedly the track being played.

The RPT indicator appears and the track will be played repeatedly.

Press the **REPEAT** button again and select OFF to deactivate the repeat play.

 If a CD Changer is connected and the RPT ALL mode is selected, the unit repeatedly plays back all tracks on the disc selected.

$$ightarrow$$
 RPT $ightarrow$ RPT ALL $ightarrow$ (off) $-$

 In case a 6-disc CD changer is connected:

In CD changer mode, press the FUNC button to light the function indicator in red, set the Function mode to ON and go to step 1.

To set the Function mode to OFF, press the FUNC button again.

 In case a 12-disc CD changer is connected:

In CD changer mode, press the FUNC button twice to light the function indicator in red, set the Function mode to ON and go to step 1.

To set the Function mode to OFF, press the FUNC button again.

M.I.X. (Random Play)

1 Press the M.I.X. button in the play or pause mode. The M.I.X. indicator will illuminate and the tracks on the disc will be played back in a random sequence. After all the tracks on the disc have been played back once, the player will begin a new random sequence play until the M.I.X. mode is cancelled.

To cancel M.I.X. play, press the **M.I.X.** button again to turn off the M.I.X.

 If a CD Changer equipped with the ALL M.I.X. function is connected, ALL M.I.X. will also be selectable.

In this mode, the tracks on all the CDs in the current magazine will be included in the random playback sequence.

 \rightarrow M.I.X. \rightarrow ALL M.I.X. \rightarrow (off) -

• In case a 6-disc CD changer is connected:

In CD changer mode, press the FUNC button to light the function indicator in red, set the Function mode to ON and go to step 1.

To set the Function mode to OFF, press the FUNC button again.

• In case a 12-disc CD changer is connected:

In CD changer mode, press the FUNC button twice to light the function indicator in red, set the Function mode to ON and go to step 1.

To set the Function mode to OFF, press the FUNC button again.

Scanning Programs

1 Press the SCAN button to activate the Scan mode.

The first 10 seconds of each track will be played back in succession.

To stop scanning, press the **SCAN** button and deactivate the Scan mode.

 In case a 6-disc CD changer is connected:

In CD changer mode, press the FUNC button to light the function indicator in red, set the Function mode to ON and go to step 1.

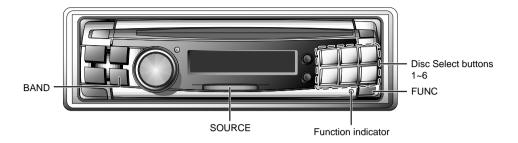
To set the Function mode to OFF, press the FUNC button again.

• In case a 12-disc CD changer is connected:

In CD changer mode, press the FUNC button twice to light the function indicator in red, set the Function mode to ON and go to step 1

To set the Function mode to OFF, press the FUNC button again.

CD Player Operation



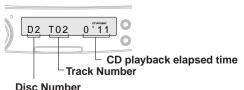
Controlling CD Changer (Optional)

An optional 6-disc or 12-disc CD Changer may be connected to the CDA-7990 if it is Ai-NET compatible. With a CD Changer connected to the Ai-NET input of the CDA-7990, the CD Changer will be controllable from the CDA-7990.

Using the KCA-400C (the Multi-Changer Switching device) multiple changers can be controlled by the CDA-7990. See the Multi-Changer Selection section on page 43 for selecting the CD Changers.

- Press the SOURCE button to activate the CHANGER mode. The display shows the "Changer", disc number and track number.
- Press the Disc Select buttons (1 through 6) corresponding to one of the discs loaded in the CD Changer. The selected disc number appears in the display and CD playback starts.

<Display example of CD changer mode>



- The controls on the CDA-7990 for CD Changer operation are operative only when a CD Changer is connected.
- The "Changer" indicator illuminates in the CD Changer mode.
- The source indicator varies depending on the connected source.
- After selecting the desired disc, you can operate in the same way as for the CDA-7990 CD player.
 For details, please see the CD Operation section.
- If the function indicator lights in red, the Disc Select buttons become nonfunctional.
- Press the FUNC button to turn the function indicator to green, then, select the discs numbered from 1 to 6

When a 12-disc CD Changer is connected:

To select discs numbered from 1 to 6, the procedure is the same as for the 6-disc CD Changer. To select discs numbered from 7 to 12, first press the **FUNC** button. This changes the "D" indicator to "d". Then press the desired **Disc Select** button. With the **FUNC** button activated, the **Disc Select** buttons 1 to 6 will represent discs 7 to 12 respectively.

 Press the FUNC button to turn the function indicator off, then, select the discs numbered from 7 to 12.

Multi-Changer Selection

Alpine's Ai-NET system will support up to 6 CD Changers. When operating two or more changers, the KCA-400C (Multi-Changer Switching device) must be used. If you use 1 Switching device, you can connect up to 4 CD Changers. If you use 2 Switching devices, you can connect up to 6 CD Changers.

1 Press the **SOURCE** button on the CDA-7990 to activate the CD Changer mode.

Alternatively, press the **SOURCE** button on the optional Remote Control to activate the CD Changer mode. Proceed to Step **3** below to select the desired CD Changer.

- Press the BAND button on the CDA-7990 or the optional Remote Control to activate the CD Changer Selection mode.
- 3 The CD Changer Selection mode remains active for 3 seconds after Step 2 is performed. Press the BAND button until the desired CD Changer indicator appears on the display.

Alternatively press the **BAND** button on the optional Remote Control until the desired changer indicator appears on the display.

4 To operate the selected changer, see "CD Operation" section.

 If the selected CD Changer is not connected, the display will show "NO CHANGER".

Information

In Case of Difficulty

If you encounter a problem, please review the items in the following checklist. This guide will help you isolate the problem if the unit is at fault. Otherwise, make sure the rest of your system is properly connected or consult your authorized Alpine dealer.

Basic

No function or display.

- Vehicle's ignition is off.
 - If connected following instructions, the unit will not operate with the vehicle's ignition off.
- Improper power lead connections.
 - Check power lead connections.
- · Blown fuse.
 - Check the fuse on the battery lead of the unit; replace with the proper value if necessary.
- Internal micro-computer malfunctioned due to interference noise etc.
 - Press the Reset switch with a ball-point pen or other pointed article.

Radio

Unable to receive stations.

- · No antenna or open connection in cable.
 - Make sure the antenna is properly connected; replace the antenna or cable if necessary.

Unable to tune stations in the seek mode.

- · You are in a weak signal area.
 - Make sure the tuner is in the DX mode.
- If the area you are in is a primary signal area, the antenna may not be grounded and connected properly.
 - Check your antenna connections; make sure the antenna is properly grounded at its mounting location.
- The antenna may not be the proper length.
 - Make sure the antenna is fully extended; if broken, replace the antenna with a new one.

Broadcast is noisy.

- The antenna is not the proper length.
 - Extend the antenna fully; replace it if it is broken.
- The antenna is poorly grounded.
 - Make sure the antenna is grounded properly at its mounting location.

CD

CD Player/Changer not functioning.

- Out of operating temperature range +50°C (+120°F) for CD.
 - Allow the vehicle's interior (or trunk) temperature to cool.

CD playback sound is wavering.

- · Moisture condensation in the CD Module.
 - Allow enough time for the condensation to evaporate (about 1 hour).

CD insertion not possible.

- · A CD is already in the CD player.
 - Eject the CD and remove it.
- The CD is being improperly inserted.
 - Make sure the CD is being inserted following instructions in the CD Player Operation section.

Unable to fast forward or backward the CD.

- The CD has been damaged.
 - Eject the CD and discard it; using a damaged CD in your unit can cause damage to the mechanism.

CD playback sound skips due to vibration.

- Improper mounting of the unit.
 - Securely re-mount the unit.
- · Disc is very dirty.
 - Clean the disc.
- · Disc has scratches.
 - Change the disc.
- · Pick-up lens is dirty
 - Do not use the lens cleaner disc on the market.

Consult your nearest ALPINE dealer.

CD playback sound skips without vibration.

- · Dirty or scratched disc.
 - Clean the disc; damaged disc should be replaced.

Error displays.

- · Mechanical error
 - Press the ≜ button. After the error indication disappears, insert the disc again. If the above-mentioned solution does not solve the problem, consult your nearest ALPINE dealer.

Indication for CD Changer

HIGH TEMP

- Protective circuit is activated due to high temperature.
 - The indicator will disappear when the temperature returns to within operation range.

ERROR - 01

- · Malfunction in the CD Changer.
 - Consult your Alpine dealer. Press the magazine eject button and pull out the magazine.

Check the indication. Insert the magazine again.

If the magazine cannot be pulled out, consult your Alpine dealer.

- · Magazine ejection not possible.
 - Press the magazine eject button. If the magazine doesnot eject, consult your Alpine dealer.

ERROR - 02

- A disc is left inside the CD Changer.
 - Press the Eject button to activate the eject function.

When the CD Changer finishes the eject function, insert an empty CD magazine into the CD Changer to receive the disc left inside the CD Changer.

NO MAGAZINE

- No magazine is loaded into the CD Changer.
 - Insert a magazine.

NO DISC

- · No indicated disc.
 - Choose another disc.

Specifications

FM TUNER SECTION

Tuning Range 87.7 - 107.9 MHzMono Usable Sensitivity $9.3 \text{ dBf} (0.8 \,\mu\text{V}/75 \text{ ohms})$ $50 \text{ dB Quieting Sensitivity} <math>13.5 \text{ dBf} (1.3 \,\mu\text{V}/75 \text{ ohms})$

Alternate Channel Selectivity 80 dB Signal-to-Noise Ratio 80 dB Stereo Separation 50 dB Capture Ratio 2.0 dB

AM TUNER SECTION

Tuning Range 530 - 1,710 kHzSensitivity (IEC Standard) $22.5 \mu\text{V}/27 \text{ dB}$

CD PLAYER SECTION

Frequency Response 5 – 20,000 Hz (±1 dB)
Wow & Flutter (% WRMS)
Below measurable limits
0.002% (at 1 kHz)
Dynamic Range 100 dB (at 1 kHz)
Signal-to-Noise Ratio 120 dB

Channel Separation 110 dB (at 1 kHz)

GENERAL

Power Requirement 14.4 V DC

(11 - 16 V allowable)

 $\begin{array}{ll} \text{Maximum Pre-Output Voltage} & 5\text{V}/10 \text{ k ohms} \\ \text{Bass} & \pm 12 \text{ dB at } 60 \text{ Hz} \\ \text{Treble} & \pm 12 \text{ dB at } 10 \text{ kHz} \\ \text{Weight} & 1.5 \text{ kg } (3 \text{ lbs. 5 oz}) \end{array}$

CHASSIS SIZE

Width	178 mm (7")		
Height	50 mm (2")		
Depth	155 mm (6-1/8")		

NOSEPIECE SIZE

Width	170 mm (6-3/4")
Height	46 mm (1-13/16")
Depth	23 mm (15/16")

<Components>

Parts name	Quantity
Main unit	1
DC-DC converter	1
Parts for mounting	1set
Power cord	1
Carrying case	1
Owner's manual	1set

Due to continuous product improvement, specifications and design are subject to change without notice.

IMITED WARRANTY

ALPINE ELECTRONICS OF AMERICA, INC. AND ALPINE OF CANADA INC. ("Alpine"), are dedicated to quality craftsmanship and are pleased to offer this Warranty. We suggest that you read it thoroughly. Should you have any questions, please contact your Dealer or Alpine at one of the telephone numbers listed below.

PRODUCTS COVERED:

This Warranty covers Car Audio/Visual Products and Related Accessories ("the product"). Products purchased in the Canada are covered only in the Canada. Products purchased in the U.S.A. are covered only in the U.S.A.

LENGTH OF WARRANTY:

This Warranty is in effect for one year from the date of the first consumer purchase.

LIFETIME TAPE HEAD WARRANTY:

All Alpine Car Audio analog tape heads excluding Video tape heads are warranted for life against manufacturing defects causing failure.

WHO IS COVERED:

This Warranty only covers the original purchaser of the product, who must reside in the United States, Puerto Rico or Canada.

WHAT IS COVERED:

This Warranty covers defects in materials or workmanship (parts and labor) in the product.

WHAT IS NOT COVERED:

This Warranty does not cover the following:

- Damage occurring during shipment of the product to Alpine for repair (claims must be presented to the carrier).
- Damage caused by accident, abuse, negligence. misuse, improper connections, improper operation or failure to follow instructions contained in the Owner's manual.
- 3 Damage caused by act of God, including without limitation, earthquake, fire, flood, storms or other acts of nature.
- 4) Any cost or expense related to the removal or reinstallation of the product.
- Service performed by an unauthorized person, company or association.
- 6 Any product which has the serial number defaced, altered or removed.
- 7 Any product which has been adjusted, altered or modified without Alpine's consent.
- 8 Any product not distributed by Alpine within the
- United States, Puerto Rico or Canada. Any product not purchased from an Authorized
- Alpine Dealer. 10 Any product that has been determined to contain an excessive amount of dust or dirt and any
- product that contains other contaminants including liquid or foreign objects.

HOW TO OBTAIN WARRANTY SERVICE:

1 You are responsible for delivery of the product to an Authorized Alpine Service Center or Alpine for repair and for payment of any initial shipping charges. Alpine will, at its option, repair or replace the product with a new or reconditioned product without charge. If the repairs are covered by the warranty, and if the product was shipped to an Authorized Alpine Service Center or Alpine, Alpine will pay the return shipping charges.

- (2) You should provide a detailed description of the problem(s) for which service is required.
- You must supply proof of your purchase of the product.
- 4) You must package the product securely to avoid damage during shipment.

HOW WE LIMIT IMPLIED WARRANTIES: ANY IMPLIED WARRANTIES INCLUDING

FITNESS FOR USE AND MERCHANTABILITY ARE LIMITED IN DURATION TO THE PERIOD OF THE EXPRESS WARRANTY SET FORTH ABOVE AND NO PERSON IS AUTHORIZED TO ASSUME FOR ALPINE ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF THE PRODUCT

HOW WE EXCLUDE CERTAIN DAMAGES: ALPINE EXPRESSLY DISCLAIMS LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES CAUSED BY THE PRODUCT. THE TERM "INCIDENTAL DAMAGES" REFERS TO EXPENSES OF TRANSPORTING THE PRODUCT TO THE ALPINE SERVICE CENTER, LOSS OF THE ORIGINAL PURCHASER'S TIME, LOSS OF THE USE OF THE PRODUCT, BUS FARES, CAR RENTALS OR OTHERS COSTS RELATING TO THE CARE AND CUSTODY OF THE PRODUCT. THE TERM "CONSEQUENTIAL DAMAGES" REFERS TO THE COST OF REPAIRING OR REPLACING OTHER PROPERTY WHICH IS DAMAGED WHEN THIS PRODUCT DOES NOT WORK PROPERLY. THE REMEDIES PROVIDED UNDER THIS WARRANTY ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS.

HOW STATE/PROVINCIAL LAW RELATES TO THE WARRANTY:

This Warranty gives you specific legal rights, and you may also have other rights which vary form state to state and province to province. In addition, some states/provinces do not allow limitations on how long an implied warranty lasts, and some do not allow the exclusion or limitation of incidental or consequential damages. Accordingly, limitations as to these matters contained herein may not apply to

IN CANADA ONLY:

This Warranty is not valid unless your Alpine car audio product has been installed in your vehicle by an Authorized Installation Center, and this warranty stamped upon installation by the installation center.

• HOW TO CONTACT CUSTOMER SERVICE:

Should the product require service, please call the following number for your nearest Authorized Alpine Service Center.

U.S.A. 1-800-ALPINE-1 (1-800-257-4631) CANADA 1-800-ALPINE-1 (1-800-257-4631)

Alpine Electronics of America, Inc., 19145 Gramercy Place, Torrance, California 90501, U.S.A. Alpine Electronics of Canada, Inc., Suite 203, 7300 Warden Ave. Markham, Ontario, L3R 9Z6, Canada



ALPINE ELECTRONICS, INC.

Tokyo office: 1-1-8 Nishi Gotanda, Shinagawa-ku, Tokyo 141-8501, Japan Tel.: (03) 3494-1101

ALPINE ELECTRONICS OF AMERICA, INC.

19145 Gramercy Place, Torrance, California 90501, U.S.A. Tel.: 1-800-ALPINE-1 (1-800-257-4631)

ALPINE ELECTRONICS OF CANADA, INC.

Suite 203, 7300 Warden Ave. Markham, Ontario L3R 9Z6, Canada Tel.: 1-800-ALPINE-1 (1-800-257-4631)

ALPINE ELECTRONICS OF AUSTRALIA PTY, LTD.

6-8 Fiveways Boulevarde Keysborough, Victoria 3173, Australia Tel.: (03) 9769-0000

ALPINE ELECTRONICS GmbH

Kreuzerkamp 7-11 40878 Ratingen, Germany Tel.: 02102-45 50

ALPINE ITALIA S.p.A.

Via C. Colombo 8, 20090 Trezzano Sul Naviglio MI, Italy Tel.: 02-48 47 81

ALPINE ELECTRONICS FRANCE S.A.R.L.

(RCS PONTOISE B 338 101 280)
98, Rue De La Belle Etoile, Z.I. Paris Nord II
B.P. 50016 F-95945, Roissy,
Charles de Gaulle Cedex, France
Tel.: 01-48 63 89 89

ALPINE ELECTRONICS OF U. K., LTD.

13 Tanners Drive, Blakelands, Milton Keynes MK14 5BU, U.K. Tel.: 01908-61 15 56

ALPINE ELECTRONICS DE ESPAÑA, S.A.

Portal De Gamarra 36, Pabellón 32 01013 Vitoria (Alava) - Apdo. 133, Spain Tel.: 34-45-283588

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